

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

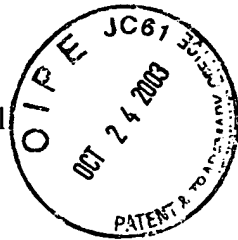
In re application of

Hiroyuki YUYAMA et al

Serial No.09/335,189

Filed June 17, 1999

DRUG PREPARATION INSTRUCTION SYSTEM



: Confirmation No. 6183

: Docket No. 99-0714A

: Group Art Unit 3626

: Examiner R. Morgan

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**APPELLANTS' BRIEF**

Commissioner for Patents  
P.O. Box 1450  
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ACCOUNT NO. 23-0975.

Sir:

This is an appeal from the rejection of claims 26-31.

**1. REAL PARTY IN INTEREST.**

The real party in interest is Kabushiki Kaisha Yuyama Seisakusho.

**2. RELATED APPEALS AND INTERFERENCES.**

There are no related appeals or interferences.

**3. STATUS OF CLAIMS.**

Claims 26-31 are pending in the application. Each of claims 26-31 is rejected.

**4. STATUS OF AMENDMENTS.**

There are no amendments filed subsequent to the rejection of June 24, 2003.

## **5. SUMMARY OF THE INVENTION.**

The drug preparation order system of the present invention permits a user to easily modify a control unit, thereby modifying printing instructions corresponding to various printer stations. One aspect of a system in accordance with the present invention enables a user to view a structured correlation between drug preparation data and the various printer stations. A further aspect of a system in accordance with the present invention enables a user to change the structured correlation between drug preparation data and the various printer stations. In a specific embodiment of a system in accordance with the present invention, the structured correlation between drug preparation data and the various printer stations is a table, for example, as illustrated in FIG. 4, and discussed on pages 10 and 11.

In a conventional drug preparation order system for example as described on pages 1-4 of the application, a plurality of drug preparation stations are arranged, such that each station prepares a specific type of drug. However, a problem with such a station as described in the second paragraph on page 3 of the specification arises if there is a relocation of a drug preparation station. Specifically, it is necessary to reprogram the control circuit of the system, which is extremely time-consuming and troublesome. Such a problem additionally arises if a new drug preparation station is added to the system.

Therefore, the drug preparation order system of the present invention overcomes the problems associated with the conventional drug preparation system and permits a user to easily modify printing instructions corresponding to various printer stations.

The present invention, as defined in independent claim 26, is directed to a drug preparation order system for use with a drug preparation order sheet. The system comprises a control unit (item 3, page 7, line 16) for carrying out logic operations and outputting control signals, a display device (item 5, page 7, line 21) connected to the control unit and a plurality of printers (item 4, page 7, line 20) connected to the control unit. The control unit comprises: a memory; an input device (items 7 and 8, page 8, line 7); a correlating means (item 3b<sub>2</sub>, page 8, line 6); a display means (item 3b<sub>1</sub>, page 8, line 6); an altering means and a printer activating means. The memory is required to comprise a memory for storing a plurality of printer codes each corresponding to one of the plurality of printers,

a plurality of drug type codes, and a printer setting file defining a correlation between the drug type codes and the printer codes. The external data than can be entered into the memory through the input device, is required to comprise a plurality of sets of data, each set comprising drug data. The correlating means is required to comprise a correlating means for correlating each of the plurality of sets of data with one of the drug type codes. The display means is required to comprise a display means for displaying the correlation between the drug type codes and the printer codes on the display device. The altering means is required to comprise an altering means for altering the correlation in response to a signal entered through the input device. The printer activating means is required to comprise a printer activating means for, in response to a command to print one of the plurality of sets of data, activating one of the printers that corresponds to one of the printer codes corresponding, in accordance with the printer setting file, to one of the drug type codes which is correlated by the correlating means with the one of the plurality of sets of data to print the one of the plurality of sets of data on a drug preparation sheet.

The present invention as defined in claim 27 requires all the elements of the invention as defined in claim 26, yet further comprises a first type of communicator (item 10, page 17, lines 1-3) and a plurality of trays (item 6, page 8, lines 11-17). The first type of communicator is connected to the control unit and is operable to transmit drug preparation order data provided by the control unit. The plurality of trays each have a second type of communicator (item 11, page 8, lines 20-23) and are combined with the control unit as a system. Each of the second type of communicators is operable to communicate with the first type of communicator. Each of the trays has a display portion (item 13, page 8, line 23) that is operable to display the drug data.

The present invention as defined in claim 28 requires all the elements of the invention as defined in claim 27, wherein the printers are operable to print on a drug preparation order sheet, information indicating whether drugs have been put into one of the plurality of trays. The control unit is further operable to transmit identification information to the trays when drug data is transmitted by the first type of communicator. The control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by the first type of communicator.

The present invention as defined in claim 29 requires all the elements of the invention as defined in claim 27, wherein the control unit is operable to transmit identification information to the trays when drug data is transmitted by the first type of communicator, and wherein the control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by the first type of communicator.

The present invention as defined in claim 30 requires all the elements of the invention as defined in claim 27, wherein the control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by the first type of communicator.

The present invention as defined in claim 31 requires all the elements of the invention as defined in claim 27, wherein in order to put drugs into said plurality of trays according to drug types and a number of days for which the drugs are to be prescribed, the drugs can be assigned to the plurality of trays. The printers are operable to print on a drug preparation order sheet, information indicating whether drugs have been put into a plurality of trays. The control unit is operable to transmit identification information to the trays, when drug data is transmitted by the first type of communicator. The control unit is further operable to transmit information on whether guidance is necessary, when drug data is transmitted by the first type of communicator.

## **6. ISSUES.**

The main issue on appeal is whether Appellants' claims 26-31 are rendered obvious, under 35 U.S.C. § 103, over U.S. Patent No. 4,847,764 to Halvorson in view of U.S. Patent No. 5,537,626 to Kraslavsky et al. (Kraslavsky).

The above issue is more specifically directed to the following two questions:

I. Does Halvorson teach the correlating means, display means, and printer activating means, as required in claim 26?

II. Does Kraslavsky teach a memory having a printer setting file, as required in claim 26, such that claim 26 would have been obvious over the combination of the teachings of Halvorson in view of Kraslavsky within the meaning of 35 U.S.C. § 103(a)?

## 7. GROUPING OF CLAIMS.

Claims 27-31 stand or fall with claim 26.

## 8. ARGUMENT.

Claim 26 requires a drug preparation order system for use with a drug preparation order sheet. The system comprises a control unit comprising a memory, an input device, a correlating means, a display means, an altering means and a printer activating means. **The memory is required to comprise a memory for storing a plurality of printer codes each corresponding to one of the plurality of printers, a plurality of drug type codes, and a printer setting file defining a correlation between the drug type codes and the printer codes.** The input device, through which external data can be entered into the memory, wherein the external data comprises a plurality of sets of data, each set comprising drug data. The correlating means is required to comprise **a correlating means for correlating each of the plurality of sets of data with one of the drug type codes.** The display means is required to comprise **a display means for displaying the correlation between the drug type codes and the printer codes on the display device.** The altering means is required to comprise **an altering means for altering the correlation in response to a signal entered through the input device.** The printer activating means is required to comprise **a printer activating means for, in response to a command to print one of the plurality of sets of data, activating one of the printers that corresponds to one of the printer codes corresponding, in accordance with the printer setting file, to one of the drug type codes which is correlated by the correlating means with the one of the plurality of sets of data to print the one of the plurality of sets of data on a drug preparation sheet.** (Emphasis Added)

On pages 3 and 4 of the June 24<sup>th</sup> Office Action, the Examiner asserts that Halvorson teaches, *inter alia*,:

“the correlating means correlating each of the plurality of sets of data with one of the drug type codes is met by the keyboard (20, Fig. 1) which allows the user to input drug information (see: column 3, lines 5-12); (note that the “sleeve id code” and “quantity of doses of a drug in the sleeve” of Fig. 9 and 10 are considered by the Examiner to be a form of “drug type data”;

“the claimed printer activating means for, in response to a command to print one of the plurality of sets of data, activating one of said printers that corresponds to one of the printer codes corresponding, in accordance with said printer setting file, to one of said drug type codes;”

“the claimed display means for displaying said correlation between the drug type codes and the printer codes on said display device is met by the monitor (30, Fig. 1) at the dispenser (32, Fig. 1), which displays inputted patient drug information. (see: column 3, lines 28-34 and Fig. 1);” and

“the claimed altering means for altering said correlation in response to a signal entered through said input device is met by the keyboard (20, Fig. 1) which allows the user to input drug information (see: column 3, lines 5-12).”

On pages 5 of the June 24<sup>th</sup> Office Action, the Examiner admits that Halvorson fails to teach “the claimed printer setting file defining a correlation between the drug type codes and the printer codes,” as required in claim 26.

The Examiner therefore relies on Kraslavsky that teaches the use of a printer software called Novell NetWare® that allows the user to control the printer’s functions which are sent to a print server. Specifically, on page 5 of the Office Action, the Examiner asserts that Novell NetWare® allows the user to “control (modify) the printer’s functions that include creating a new print server and print queues, configuring printing ports (reads on “correlation data to printer codes”) and starting or stopping printer (see column 12, lines 6-13).”

Question I:

Does Halvorson teach the correlating means, display means, altering means and printer activating means as required in claim 26?

It is respectfully submitted that Kraslavsky does not teach the correlating means, display means, altering means or printer activating means as required in claim 26.

Specifically, as indicated above, the correlating means of claim 26 is required to correlate “each of the plurality of sets of data with one of the drug type codes.” As described, for example on pages 10 and 11 with respect to Fig. 4, the correlating means provides a correlation between the drug preparation data and the various printer stations, for example as a table.

Halvorson fails to teach such a correlating means. Contrary to the assertion of the Examiner, a keyboard which allows the user to input drug information does not anticipate a correlating means that correlates each of a plurality of sets of data with one of the drug type codes as required in claim 26.

Although data may be entered into a computer, and although once entered it is generally accepted that the data is stored somehow and somewhere in the computer, it is respectfully submitted that all entered data is not stored as a "correlation." Accordingly, it is respectfully submitted that merely because a user can enter data via a keyboard into a computer, such entry does not necessarily translate into a correlation with other data. More specifically, it is respectfully submitted that Halvorson fails to teach entering one set of data, entering another set of data, and then storing the two sets of data as a correlation.

It seems that, according to the reasoning provided in the Office Action, that a keyboard (and a user inputting data) would anticipate any conceivable operation on a computer. Clearly such a line of reasoning is not commensurate with 35 U.S.C. §102. Therefore, clearly, contrary to the assertion by the Examiner, a keyboard does not teach the correlating means for correlating each of a plurality of sets of data with one of the drug type codes as required in claim 26.

It is respectfully submitted that Halvorson fails to teach a display means for displaying the correlation between the drug type codes and the printer codes on the display device.

A particular aspect of the present invention is to provide a system that enables a user to easily change a particular correlation of data. As indicated above it is generally understood that data is stored in a computer. However, as indicated in the background of the present invention, two particular types of data are of particular importance to the present invention. Accordingly, the present invention provides a correlation of the two particular types of data and a vehicle to easily change the correlation. Therefore, the present invention provides a benefit over a Prior Art system because in the Prior Art system there was no accessible correlation between the two sets of data. Once the correlating means correlates the plurality of sets of data with one of the drug type codes, the display means displays the correlation on the display device, e.g. a monitor.

The Examiner asserts that the display means is met by the “monitor (30, Fig. 1) at the dispenser (32, Fig. 1), which displays inputted patient drug information.” As indicated above, Halvorson fails to teach a correlation as required in claim 26. For at least this reason, Halvorson fails to teach displaying the correlation as required in claim 26.

Furthermore, it might be possible for data that is stored in a computer to be organized and displayed on a display device associated with the computer in most any conceivable manner. However, it is respectfully submitted that such conceivable operabilities of a computer do not necessarily translate into a displaying a correlation as required in claim 26. It is respectfully submitted that Halvorson may disclose storing a plurality of sets of data. However, Halvorson fails to teach creating a correlation between two particular sets of data and more importantly displaying the correlation such that the user may easily access the correlation.

In light of the above discussion it is clear that Halvorson fails to teach the display means as required in claim 26.

Similar to the correlating means and the display means as discussed above, the Examiner asserts that the altering means required in claim 26 is met “by the keyboard (20, Fig. 1) which allows user to input drug information.”

Accordingly, similar to the reasons discussed above with respect to the display means, it is respectfully submitted that the keyboard does not teach the altering means for altering the correlation in response to a signal entered through the input device as required in claim 26. Specifically, it is generally accepted that a keyboard is used to manipulate data in a computer to alter the computer’s functions or alter data stored therein. It should at least be understood that “the keyboard” of Halvorson might merely teach “the input device” as required in claim 26, not “the altering means” as required in claim 26. Nevertheless, it is respectfully submitted that merely because a user can enter data via a keyboard into a computer, such entry does not necessarily translate into a means for altering the correlation in response to a signal entered through the input device as required in claim 26.



It is respectfully submitted that Halvorson may disclose a keyboard for entering data. However, Halvorson fails to teach an altering means for altering a correlation in response to a signal entered through an input device, as required in claim 26.

In light of the above discussion it is clear that Halvorson fails to teach the altering means as required in claim 26.

With respect to the printer activating means as required in claim 26, it is respectfully submitted that all “words in a claim must be considered in judging the patentability of that claim against the Prior Art.” *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

It is respectfully submitted that the Examiner does not even assert that Halvorson teaches the printer activating means required in claim 26. More specifically, the Examiner fails to address the phrase “which is correlated by said correlating means with said one of the plurality of sets of data to print said one of the plurality of sets of data on a drug preparation sheet,” of claim 26.

Accordingly, even if Halvorson teaches a printer activating means as discussed on page 4 of the Office Action, which the Applicants are not admitting that is the case, it is respectfully submitted that Halvorson fails to teach the printer activating means as required in claim 26.

In light of the above discussion, it is respectfully submitted that Halvorson fails to teach at least the correlating means, display means, altering means and printer activating means as required in claim 26.

#### Question II:

Does Kraslavsky teach a memory having a printer setting file, as required in claim 26, such that claim 26 would have been obvious over the combination of the teachings of Halvorson in view of Kraslavsky within the meaning of 35 U.S.C. § 103(a)?

It is respectfully submitted that Kraslavsky does not teach a printer setting file defining a correlation between the drug type codes and printer codes as required in claim 26. As discussed above, an important aspect of the present inventions is to provide a user with an easy vehicle to change a correlation between two sets of data that have been stored in the computer. This vehicle comprises creating a correlation between two sets of data, displaying the correlation and enabling

the user to modify the correlation. More specifically, as required in claim 26 and discussed above, the memory stores, *inter alia*, a printer setting file defining a correlation between the drug type codes and the printer codes. It is this printer setting file, that was not provided in Prior Art systems, that enables the user to easily change the activities of specific printer stations.

Page 5 of the Office Action asserts that Novell Netware® allows the user to “control (modify) the printer’s functions that include creating a new print server and print queues, configuring printing ports (reads on “correlation data to printer codes”) and starting or stopping printer (see column 12, lines 6-13).” Nevertheless, it is respectfully submitted that Kraslavsky fails to teach a printer setting file defining a correlation between the drug type codes and the printer codes as required in claim 26.

Similar to the analysis discussed above, with respect to asserting that a keyboard is a correlating means, it is respectfully submitted that Novell Netware® is not a printer setting file defining a correlation between the drug type codes and the printer codes. In particular, although Kraslavsky indicates that Novell Netware® can modify the printer’s functions, it does not teach the printer setting file as required in claim 26. More particularly, Novell Netware® does not anticipate every conceivable modification of a printer function within the meaning of 35 U.S.C. §102.

In light of the above discussion, it is respectfully submitted that Kraslavsky fails to teach the printer setting file required in independent claim 26.

## **APPENDIX**

A copy of the claims on appeal is set forth in an Appendix immediately following the conclusion and signature, and is incorporated herein by reference.


## **CONCLUSION**

In view of the above, it is apparent that the prior art references, taken alone or in combination, fail to disclose or suggest the above claims in combination. Therefore, for the reasons stated above, the Examiner's decision to finally reject claims 26-31 should be reversed.

This brief is submitted in triplicate.

Respectfully submitted,

Hideyuki YUYAMA et al.

By   
Thomas D. Robbins  
Registration No.43,369  
Attorney for Appellants

TDR/nk  
Washington, D.C.  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
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## **APPENDIX - Claims on Appeal**

26. A drug preparation order system for use with a drug preparation order sheet, said system comprising:

a control unit for carrying out logic operations and outputting control signals;

a display device connected to said control unit; and

a plurality of printers connected to said control unit,

said control unit comprising:

a memory for storing a plurality of printer codes each corresponding to one of said plurality of printers, a plurality of drug type codes, and a printer setting file defining a correlation between the drug type codes and the printer codes;

an input device through which external data can be entered into said memory, said external data comprising a plurality of sets of data, each set comprising drug data;

correlating means for correlating each of the plurality of sets of data with one of the drug type codes;

display means for displaying said correlation between the drug type codes and the printer codes on said display device;

altering means for altering said correlation in response to a signal entered through said input device; and

printer activating means for, in response to a command to print one of the plurality of sets of data, activating one of said printers that corresponds to one of the printer codes corresponding, in accordance with said printer setting file, to one of said drug type codes which is correlated by said correlating means with said one of the plurality of sets of data to print said one of the plurality of sets of data on a drug preparation sheet.

27. The system of claim 26, further comprising:

a first type of communicator connected to said control unit, said first type of communicator being operable to transmit drug preparation order data provided by said control unit,

a plurality of trays, each having a second type of communicator, said plurality of trays and said control unit being combined as a system,

wherein each of said second type of communicators is operable to communicate with said first type of communicator,

wherein each of said trays has a display portion, and

wherein said display portions are operable to display the drug data.

28. The system of claim 27, wherein said printers are operable to print on a drug preparation order sheet, information indicating whether drugs have been put into one of said plurality of trays,

wherein said control unit is operable to transmit identification information to said trays when drug data is transmitted by said first type of communicator, and

wherein said control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by said first type of communicator.

29. The system of claim 27, wherein said control unit is operable to transmit identification information to said trays when drug data is transmitted by said first type of communicator, and

wherein said control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by said first type of communicator.

30. The system of claim 27, wherein said control unit is operable to transmit information on whether guidance is necessary when drug data is transmitted by said first type of communicator.

31. The system of claim 27, wherein in order to put drugs into said plurality of trays according to drug types and a number of days for which the drugs are to be prescribed, the drugs can be assigned to said plurality of trays,

wherein said printers are operable to print on a drug preparation order sheet, information indicating whether drugs have been put into a plurality of trays,

wherein said control unit is operable to transmit identification information to said trays, when drug data is transmitted by said first type of communicator, and

wherein said control unit is operable to transmit information on whether guidance is necessary, when drug data is transmitted by said first type of communicator.